Scatter Plot Comparison of Math and Science Marks

Aim

To create a scatter plot comparing Mathematics and Science marks of 10 students using Python and matplotlib.

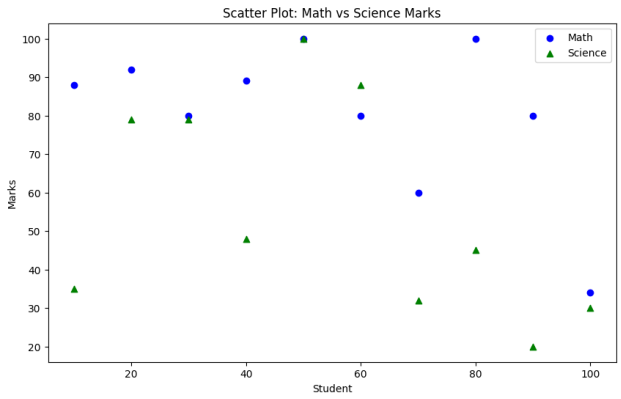
Algorithm

1. Import required libraries (matplotlib.pyplot)
2. Define the data for math marks, science marks, and marks range
3. Create a new figure and axis
4. Plot math marks as blue dots
5. Plot science marks as green triangles
6. Set the title, x-label, and y-label for the plot
7. Add a legend to distinguish between math and science marks
8. Display the plot

Code

```
import matplotlib.pyplot as plt
math_marks = [88, 92, 80, 89, 100, 80, 60, 100, 80, 34]
science_marks = [35, 79, 79, 48, 100, 88, 32, 45, 20, 30]
marks_range = [10, 20, 30, 40, 50, 60, 70, 80, 90, 100]
fig, ax = plt.subplots(figsize=(10, 6))
ax.scatter(marks_range, math_marks, color='blue', label='Math')
ax.scatter(marks_range, science_marks, color='green', marker='^', label='Science')
ax.set_title('Scatter Plot: Math vs Science Marks')
ax.set_xlabel('Student')
ax.set_ylabel('Marks')
ax.legend()
plt.show()
```

Output



Result

The scatter plot visually compares Math and Science marks, revealing performance trends and outliers across 10 students.